commensal comprises a microbe/community of microbes that supports the generation of immunoregulatory IgA plasma cells.

[0026] In an embodiment of the method of treating an autoimmune disease in a subject provided herein, the gut commensal comprises *Tritrichomonas musculis* or a gut microbial community that has been modified by carriage of *Tritrichomonas musculis*.

[0027] In an aspect of the disclosure, a method of reducing inflammation in a subject is provided. The method comprises administering an effective amount of one or more of:

[0028] a B-cell Activating Factor (BAFF) polypeptide;

[0029] a BAFF polypeptide and an agent that promotes survival and/or migration of gut-derived commensal-reactive B cells to the central nervous system of the subject;

[0030] a BAFF polypeptide and an agent that depletes B cells; or

[0031] a BAFF polypeptide and a gut commensal that increases IgA levels to the subject.

[0032] In an embodiment of the method of reducing inflammation in a subject provided herein, the inflammation is reduced in the periphery of the subject.

[0033] In an embodiment of the method of reducing inflammation in a subject provided herein, the inflammation is reduced in the central nervous system.

[0034] In an embodiment of the method of reducing inflammation in a subject provided herein, the inflammation is neuroinflammation.

[0035] In an embodiment of the method of reducing inflammation in a subject provided herein, the neuroinflammation is caused by multiple sclerosis.

[0036] In an embodiment of the method of reducing inflammation in a subject provided herein, the BAFF polypeptide is fused to the human Fc region of an immunoglobulin polypeptide.

[0037] In an embodiment of the method of reducing inflammation in a subject provided herein, the commensal-reactive B cells are IgA+ plasmablasts and/or plasma cells.

[0038] In an embodiment of the method of reducing inflammation in a subject provided herein, the commensal-reactive B cells express IL-10 and/or iNOS.

[0039] In an embodiment of the method of reducing inflammation in a subject provided herein, the agent that promotes survival and/or migration of gut-derived commensal-reactive B cells is a cytokine or a chemokine.

[0040] In an embodiment of the method of reducing inflammation in a subject provided herein, the agent that promotes survival and/or migration of gut-derived commensal-reactive B cells is IL-10 and/or iNOS.

[0041] In an embodiment of the method of reducing inflammation in a subject provided herein, the agent that depletes B cells comprises an antibody.

[0042] In an embodiment of the method of reducing inflammation in a subject provided herein, the agent that depletes B cells comprises an antibody that binds to CD19 and/or CD20.

[0043] In an embodiment of the method of reducing inflammation in a subject provided herein, the gut commensal is a commensal microbe.

[0044] In an embodiment of the method of reducing inflammation in a subject provided herein, the administering an effective amount of a gut commensal comprises oral or rectal administration of a microbe or community of microbes.

[0045] In an embodiment of the method of reducing inflammation in a subject provided herein, the gut commensal comprises a microbe/community of microbes that supports the generation of immunoregulatory IgA plasma cells.

[0046] In an embodiment of the method of reducing inflammation in a subject provided herein, the gut commensal comprises *Tritrichomonas musculis* or a gut microbial community that has been modified by carriage of *Tritrichomonas musculis*.

[0047] In an aspect of the disclosure, a method of enriching gut-derived commensal-reactive IgA+ plasmablasts and/or plasma cells in the central nervous system of a subject is provided. The method comprises administering an effective amount of one or more of:

[0048] a B-cell Activating Factor (BAFF) polypeptide;

[0049] a BAFF polypeptide and an agent that promotes survival and/or migration of gut-derived commensal-reactive B cells to the central nervous system of the subject;

[0050] a BAFF polypeptide and an agent that depletes B cells; or

[0051] a BAFF polypeptide and a gut commensal that increases IgA levels to the subject.

[0052] In an embodiment of the method of enriching gut-derived commensal-reactive IgA+ plasmablasts and/or plasma cells in the central nervous system of a subject provided herein, the gut-derived commensal-reactive IgA+ plasmablasts and/or plasma cells express IL-10 and/or iNOS.

[0053] In an embodiment of the method of enriching gut-derived commensal-reactive IgA+ plasmablasts and/or plasma cells in the central nervous system of a subject provided herein, the subject has an autoimmune disease.

[0054] In an embodiment of the method of enriching gut-derived commensal-reactive IgA+ plasmablasts and/or plasma cells in the central nervous system of a subject provided herein, the subject has a non-systemic organ-specific autoimmune disease.

[0055] In an embodiment of the method of enriching gut-derived commensal-reactive IgA+ plasmablasts and/or plasma cells in the central nervous system of a subject provided herein, the subject has multiple sclerosis.

[0056] In an embodiment of the method of enriching gut-derived commensal-reactive IgA+ plasmablasts and/or plasma cells in the central nervous system of a subject provided herein, the BAFF polypeptide is fused to the human Fc region of an immunoglobulin polypeptide.

[0057] In an embodiment of the method of enriching gut-derived commensal-reactive IgA+ plasmablasts and/or plasma cells in the central nervous system of a subject provided herein, the agent that promotes survival and/or migration of gut-derived commensal-reactive B cells is a cytokine or a chemokine.

[0058] In an embodiment of the method of enriching gut-derived commensal-reactive IgA+ plasmablasts and/or plasma cells in the central nervous system of a subject provided herein, the agent that promotes survival and/or migration of gut-derived commensal-reactive B cells is IL-10 and/or iNOS.

[0059] In an embodiment of the method of enriching gut-derived commensal-reactive IgA+ plasmablasts and/or plasma cells in the central nervous system of a subject provided herein, the agent that depletes B cells comprises an antibody.